



CARDIAC ARREST - ADULT

I. FIELD ASSESSMENT/TREATMENT INDICATORS

Cardiac arrest in a non-traumatic setting.

II. BLS INTERVENTIONS

- Assess patient, begin CPR according to current AHA Guidelines, and maintain appropriate airway.
 - Compression rate shall be 100 per minute utilizing 30:2 compression-to-ventilation ratio for synchronous CPR prior to placement of advanced airway.
 - Ventilatory volumes shall be sufficient to cause adequate chest rise.
- Place patient on AED. CPR is **not** to be interrupted except briefly for rhythm assessment.

III. LIMITED ALS (LALS) INTERVENTIONS

- Initiate CPR while applying the AED.
- Establish advanced airway when resources are available, with minimal interruption to chest compressions. After advanced airway established, compressions would then be continued at 100 per minute without pauses during ventilations.
- Establish peripheral intravenous access and administer a 500 ml bolus of normal saline (NS).
- Refer to ICEMA Reference #12010 - Determination of Death on Scene.
- Obtain blood glucose level, if indicated administer:
 - Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.
 - May repeat blood glucose level. Repeat Dextrose per ICEMA Reference #7040 - Medication - Standard Orders if indicated.

- If suspected narcotic overdose with severely decreased respiratory drive administer:
 - Naloxone per ICEMA Reference #7040 - Medication - Standard Orders.

NOTE: Base hospital contact is required to terminate resuscitative measures.

IV. ALS INTERVENTIONS

- Initiate CPR while applying the cardiac monitor.
- Determine cardiac rhythm and defibrillate if indicated. Begin a two (2) minute cycle of CPR.
- Obtain IV/IO access.
- Establish advanced airway when resources are available, with minimal interruption to chest compressions. After advanced airway established, compressions would then be continued at 100 per minute without pauses during ventilations. Ventilations should be given at a rate of one (1) breath every six (6) to eight (8) seconds.
- Utilize continuous quantitative waveform capnography, for confirmation and monitoring of endotracheal tube placement and for assessment of ROSC and perfusion status. Document the shape of the wave and the capnography number in mmHG.
- Insert NG/OG Tube to relieve gastric distension per ICEMA Reference #10190 - ICEMA Approved Skills.
- Obtain blood glucose level. If indicated administer:
 - Dextrose per ICEMA Reference #7040 - Medication - Standard Orders.
 - May repeat blood glucose level. Repeat Dextrose per ICEMA Reference #7040 - Medication - Standard Orders if indicated.
- If suspected narcotic overdose with severely decreased respiratory drive administer:
 - Naloxone per ICEMA Reference #7040 - Medication - Standard Orders.

- If ROSC is achieved, obtain a 12-lead ECG and contact a STEMI base hospital for destination decision, refer to ICEMA Reference #8130 - Destination Policy.
- Utilize continuous waveform capnography, to identify loss of circulation.
- For continued signs of inadequate tissue perfusion after successful resuscitation, administer:
 - Dopamine per ICEMA Reference #7040 - Medication - Standard Orders to maintain signs of adequate tissue perfusion.
- Base hospital physician may order additional medications or interventions as indicated by patient condition.

Ventricular Fibrillation/Pulseless Ventricular Tachycardia

- Defibrillate at 360 joules for monophasic or biphasic equivalent per manufacture. If biphasic equivalent is unknown use maximum available.
- Perform CPR for two (2) minutes after each defibrillation, without delaying to assess the post-defibrillation rhythm.
- Administer Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders during each two (2) minute cycle of CPR after every defibrillation unless capnography indicates possible ROSC.
- Reassess rhythm after each two (2) minute cycle of CPR. If VF/VT persists, defibrillate as above.
- After two (2) cycles of CPR, consider administering:
 - Lidocaine per ICEMA Reference #7040 - Medication - Standard Orders.
- If patient remains in pulseless VF/VT after five (5) cycles of CPR, consult base hospital.

Pulseless Electrical Activity (PEA) or Asystole

- Assess for reversible causes and initiate treatment.
- Continue CPR with evaluation of rhythm every two (2) minutes.
- Administer fluid bolus of 300 ml NS IV, may repeat.

- Administer Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders during each two (2) minute cycle of CPR after each rhythm evaluation.

Termination of Efforts in the Prehospital Setting

- The decision to terminate efforts in the field should take into consideration, first, the safety of personnel on scene, and then family and cultural considerations.
- Consider terminating resuscitative efforts in the field if ALL of the following criteria are met:
 - No shocks were delivered.
 - No ROSC after a minimum of ten (10) minutes of advance cardiac life support (ACLS).
- Base hospital contact is required to terminate resuscitative measures. A copy of the ECG should be attached to the patient care report for documentation purposes.

V. REFERENCES

<u>Number</u>	<u>Name</u>
7040	Medication - Standard Orders
8130	Destination Policy
10190	ICEMA Approved Skills
12010	Determination of Death on Scene